

# TRIODE FIELD EMISSION COLD CATHODE DEVICES WITH RANDOM DISTRIBUTION AND METHOD

## Abstract

A method of manufacturing a triode field emission cold cathode device having randomly distributed field emission emitters comprising the steps of providing a substrate (10), depositing a first conductive layer (11) on the substrate, spraying the preceding layer with a random pattern of masking material (20), depositing an insulating layer (13) on the masked preceding layer, depositing a second conductive layer (14) on the insulating layer, and removing the masking material. A triode field emission cold cathode device having randomly distributed field emission emitters is also provided.